

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/006070

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K31/404 A61P7/00 A61P11/00 A61P43/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, CHEM ABS Data, CANCERLIT, MEDLINE, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 296 110 A (CIBA GEIGY AG) 21 December 1988 (1988-12-21) cited in the application abstract page 2, line 1 - line 58 examples 1-47 claims 1-23	1, 19, 20
X	EP 0 657 164 A (CIBA GEIGY AG) 14 June 1995 (1995-06-14) cited in the application abstract page 2, line 1 - line 16 page 3, line 11 - line 15 claims 1-12	1, 19, 20
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

11 November 2004

Date of mailing of the international search report

19/11/2004

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	COOLS, J. ET AL.: "PKC412 overcomes resistance to imatinab in a murine model of FIP1L1-PDGFR α -induced myoproliferative disease" CANCER CELL, vol. 3, 19 May 2003 (2003-05-19), pages 459-469, XP002302132 the whole document	1-21
A	KILON, A.D. ET AL.: "Elevated serum tryptase levels identify a subset of patients with a myeloproliferative variant of idiopathic hypereosinophilic syndrome associated with tissue fibrosis, poor prognosis and imatinab responsiveness" BLOOD, vol. 101, no. 12, 3 April 2003 (2003-04-03), pages 4660-4666, XP002302133 abstract discussion	1-21
P,X	COOLS J ET AL: "THE EOL-1 CELL LINE AS AN IN VITRO MODEL FOR THE STUDY OF FIP1L1-PDGFR α POSITIVE CHRONIC EOSINOPHILIC LEUKEMIA" BLOOD, W.B.SAUNDERS COMPAGNY, ORLANDO, FL, US, vol. 102, no. 11, 16 November 2003 (2003-11-16), page 593A, XP001194818 ISSN: 0006-4971 abstract	1-21
P,X	COOLS J, ET AL.: "The EOL-1 cell line as an in vitro model for the study of FIP1L1-PDGFR α -positive chronic eosinophilic leukaemia" BLOOD, vol. 103, no. 7, 1 April 2004 (2004-04-01), pages 2802-2805, XP002302134 abstract	1-21
P,A	COOLS, J. ET AL.: "CHIC2 deletion, a surrogate for FIP1L1-PDGFR α fusion, occurs in mastocytosis associated with eosinophilia and predicts response to imatinib mesylate therapy" BLOOD, vol. 102, no. 9, 1 November 2003 (2003-11-01), pages 3093-3096, XP002302135 abstract	1-21
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,A	<p>COOLS, J. ET AL.: "The FIP1L1-PDGFRa kinase in hypereosinophilic syndrome and chronic eosinophilic leukaemia" CURR. OPIN. HEMATOL., vol. 11, January 2004 (2004-01), pages 51-57, XP009036026 abstract conclusions</p>	1-21

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Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1-5, 8-10, 12-21
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy (re: claims 8, 9 and 13-21)
2. ☒ Claims Nos.: 1-5, 8, 10, 12, 13, 19, 20, 21
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Claims Nos.: 1-5,8-10,12-21

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy (re: claims 8, 9 and 13-21)

Continuation of Box II.2

Claims Nos.: 1-5,8,10,12,13,19,20,21

Present claims 1-5,8,10,12,13,19,20 and 21 relate to a product/method defined by reference to a desirable characteristic or property, namely "FIP1L1-PDGFR α -induced myoproliferative diseases".

The claims cover any myoproliferative disease which is induced by FIP1L1-PDGFR α , whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such. In the present case, it is not immediately obvious which diseases are induced by this mechanism. Thus the claims lack support, and the application lacks disclosure, such that a meaningful search over the whole of the claimed scope is impossible.

Furthermore, since the application does not provide a test to determine, unequivocally, whether any given myoproliferative disease is induced by FIP1L1-PDGFR α , and none exists, the claims also lack clarity and disclosure (Art 5 and 6 PCT).

The search has therefore been restricted to those specific diseases mentioned in the application, namely hyperoesinophilic syndrome (cf. description, page 1, paragraph 1 and claim 6).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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